

толстолобик, черный амур, форелеокунь, бестер, ленский осетр, веслонос. Они хорошо растут при температуре воды от 20 до 30 °С.

В холодноводных хозяйствах в первую очередь выращивают радужную форель, ручьевая форель, пелядь и из аборигенных видов ихтиофауны. Если есть, также весьма целесообразно культивирование чудского сига и чира. Рыбы, выращиваемые в холодноводных хозяйствах, хорошо растут при температуре воды 10-20 °С.

Методы отлова, содержания, стимуляции созревания производителей, получения и инкубации икры разработаны достаточно хорошо для многих видов рыб.

Таким образом, производство товарной рыбы по правилам разведения и выращивания в пастбищной технологии рыбоводстве предусматривает отказ от использования пестицидов, синтетических минеральных удобрений, регуляторов роста, искусственных пищевых добавок, а также запрет на использование генетически-модифицированных организмов.

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## **CHEMICAL COMPOSITION AND FEED VALUE OF WORMWOOD (*Artemisia Diffusa* H. Krasch)**

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Pasture livestock farming is one of the main branches of agriculture in Uzbekistan. This industry is characterized by high profitability of production due to the efficient use of natural pasture resources with low costs of production. In the conditions of Uzbekistan, this industry is based on 20.6 million hectares of natural

desert and semi-desert pastures, of which 17.5 million hectares are directly allocated to Karakul sheep farming with a livestock population of more than 6 million heads. Natural pasture conditions of this territory are the main source of formation of the forage base of this industry.

It should be noted that the productivity of natural pastures in these regions is low and largely depends on precipitation. As a result of such anthropogenic factors associated with the global problem of global warming, leads to a sharp decrease in precipitation; as a result of irrational use and uncontrolled grazing of pasture animals, pasture degradation is expanding. In turn, these factors have a negative impact on the intensive development of desert-pasture livestock farming. In this regard, there is a need for a radical revision of this problem, which can be solved by scientifically based agricultural production technologies, such as: improving natural pastures by improving agricultural technologies for sowing seeds of wild forage plants with efficient use of the water properties of desert soils; grazing animals on fenced pastures; harvesting and storing feed resources for the winter; improving the forage base through the production of concentrated feed in the form of granules, briquettes and compound feed; development of feed additives enriched with mineral and biologically active substances; preparation of coarse-stemmed fodder for feeding; improvement of technologies for stall keeping of animals with efficient use of land and pasture resources.

The most common forage plant in desert and semi-desert pastures are various species of wormwood. Wormwood (*Artemisia*) is a semi-shrub of the Asteraceae family, highly branched, 30-50 cm in height. The lifespan of wormwood is 12-25 years. It reproduces by seeds. Seedlings appear in March, early April. The vegetation period is 240-280 days, from February to December. This plant is found throughout the desert and semi-desert zone of Central Asia: the Aral-Caspian Lowland, the Karakum of Kyzylkum, the foothill plain and the Pamir-Alai.

Wormwood serves as a good feed for pasture livestock in the autumn-winter period. Harvesting hay from this plant is also important for strengthening the feed base in livestock farms for the winter period.

As is known, the chemical composition of plants and the nutritional value of feed depend on many factors, the main one being the natural and climatic conditions of the soil. Given climate change and increasing soil degradation, these factors seriously affect the nutritional properties of feed. Therefore, studying the actual chemical composition and determining the nutritional value of feed is important for the preparation of detailed and complete rations in animal husbandry.

In this regard, our study aimed to investigate the actual chemical composition and nutritional value of wormwood hay (*Artemisia Diffusa* H. Krasch), which can be used to formulate complete diets in pasture livestock farming.

**Research metho.** a sample of the pasture plant wormwood (*Artemisia Diffusa* H. Krasch) was obtained by the method of medium mowing [1] from a pasture in the territory of the Pakhtachi district of the Samarkand region in the karakul breeding farm "Karnabota". The chemical composition of the sample was studied in the laboratory of Eurofins Agro Testing Wageningen B.N. (Netherlands) (accreditation number is L122) [2].

**Research results.** Table 1 shows the results of nutritional value and analysis result.

**Table 1.**

**Nutritional value and analysis result (in g/kg)**

Analysis	Result	
	product	dry matter
Dry Matter	919	
Feed Unit Milk	365	397
Feed Unit Beef Cattle Intensive	286	311
Intestine Digestible Protein	13	14
Degradable Protein Balance	-6	-6
Digestible Organic Matter	316	344
Fermentable Organic Matter (rumen)	307	334
Degradable Protein Balance 2 hours	17	18
Fermentable Organic Matter 2 hours	73	79
Structure value	4,2	
Satiety value	1,40	
Crude ash		99
Dig. Organic Matter% (%OM)		38,2
Crude Protein		84
Crude Fat		33
Crude Fiber		333
Sugar		<11
Neutral Detergent Fiber		620
Acid Detergent Fiber		415
Acid Detergent Lignin		125

The main nutritional indicators of this type of hay are the content of crude protein (84 g/kg), crude fat (33 g/kg) and crude fiber (333 g/kg) in dry matter. Based on these data, this feed belongs to class III hay.

Table 2 provides data on the content of minerals in the feed.

**Table 2**

**Mineral composition of wormwood**

Sodium, g/kg	3,2	Manganese, mg/kg	93
Potassium, g/kg	13,0	Zinc, mg/kg	19
Magnesium, g/kg	2,3	Iron, mg/kg	2053
Calcium, g/kg	9,0	Copper, mg/kg	12,1
Phosphorus, g/kg	1,0		
Sulphur, g/kg	2,6		
Chloride, g/kg	2,1		
Cation Anion Ball (meq)	250		

One of the main indicators in standardized feeding is the calcium and phosphorus indicators. As usual in roughage, the calcium content exceeds phosphorus. Similarly, in this feed, the calcium content is 9.0 and phosphorus 1.0 g/kg.

**Conclusions.** The obtained data on the nutritional value and mineral composition of wormwood hay can be used to formulate complete rations in pasture livestock farming.

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## INHERITANCE OF SELECTION TRAITS OF KARAKUL SHEEP WITH VARIOUS SELECTION OPTIONS

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**Abstract.** Our findings revealed that the inheritance of gray and black fur colors across the different selection options occurred in a consistent ratio. In the first selection variant (a gray ram with even silver marking ♂ x a black jacket fur type ewe with intense pigmentation ♀), the proportion of gray offspring was 50.6%. Similarly, in the second selection variant (a black jacket fur type ram with intense pigmentation ♂ x a gray ewe with even silver marking ♀), the proportion of gray offspring was 49.6%. The percentage of black lambs obtained in both selection options was nearly equivalent, with 49.4% and 50.4% in the first and second variants, respectively.

**Keywords:** black and gray color, classiness, rams, ewes, fur types, curl width, curl length.

In the last century, each intra-breed type of the Karakul sheep breed was characterized by its numbers as a super population and rich genetic diversity. Today, the genetic diversity in the gene pool of the breed has been significantly depleted, and the Karakul breed is represented mainly by only 2 small populations of different colors - black and gray. Consequently, in such situations, genetic progress in breeding activities will be relatively insignificant, especially since they may disappear in the future. Therefore, the preservation and rational use of the existing genetic resources of black and gray Karakul sheep is of particular breeding importance.

In this regard, a problem arises that requires new approaches to solving a number of scientific and practical issues of selection, in particular, selective and genetic improvement of animals based on the selection and selection of the best genotypes.